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**Africa and Nuclear Non Proliferation PPNN
Workshop General Report**

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Summary:

Summarizes the events and issues of the PPNN workshop for Senior Government Officials in the Africa and Nuclear Non-proliferation program.

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AFRICA AND NUCLEAR NON-PROLIFERATION

A PPNN Workshop for Senior Government Officials
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RAPPORTEUR'S SUBSTANTIVE REPORT

Introduction

To someone resident outside Africa, the most striking impression left by this PPNN workshop was one of unprecedented change: that Africa, particularly Southern Africa, is undergoing a complete transformation of its political, security, diplomatic and developmental context. There appeared to be an acceptance that the states of Africa had to put the past behind them, though not necessarily to forget it, and wrestle constructively and cooperatively with the consequences of the new global and regional political and economic environments. As a result, the starting point for any discussion of the security and politics of Africa now appeared to be Africa itself and the need for self-reliance. Above all, there was a sense that South Africa was starting to integrate with the rest of Southern Africa. It was this sense of change in perceptions of the regional and global system that left the most lasting impression. As one participant reflected: "I am still in awe at the psychological results of the meeting".

The discussions in the workshop appeared to indicate that these changes were a result of various factors, including:

- i) the radically changed internal situation in South Africa;
- ii) the end of the East-West ideological conflict, and an increasing recognition that the developed states will no longer use the continent to work out their quarrels through competitive interventions, but might well ignore and marginalise it;
- iii) a realisation that only co-operative industrialisation and the use of all the technological resources of the region can produce its effective economic development.

Given this changed context, the following linked questions emerged at the workshop as central to the future development of security and nuclear non-proliferation in Africa.

- A) Can South Africa's explanations of the reasons for its development of nuclear devices, the nature of the programme to produce these devices and the decision to terminate it be accepted, despite initial attempts to conceal past actions [i.e. can South Africa now be fully trusted]?
- B) How can confidence be constructed between South Africa and its neighbours in the security and nuclear areas?
- C) How easy is it going to be for Africa to become a nuclear-weapon/device-free zone?
- D) How is Africa to address its future security problems?
- E) What relevance have nuclear energy and the global non-proliferation regime to

Africa?

- F) What are the issues that Africa needs to address in connection with the 1995 NPT extension conference?

Each of these questions was examined in detail in the course of the workshop, and the following key points emerged.

A) Can South Africa now be trusted in the nuclear area?

This appears to be the starting point for the further development of the non-proliferation situation in Africa. Points made in relation to this were:

- i) the information given by South Africa to the IAEA on its fissile material production, and obtained through inspections appeared to be broadly consistent with each other;
- ii) there appeared to be no logical reason why nuclear material should have been held back;
- iii) the security explanation offered by the South African government for developing nuclear devices [see Annex A] appeared understandable, though not necessarily plausible;
- iv) the unique, yet puzzling, feature of the rationale given for the construction of nuclear devices was the proposition that it would have generated deterrence in a staged manner, starting with uncertainty and then moving to deterrence as a consequence of a testing programme. This particular type of deterrence thesis has never been advanced before: how it was expected to work remains unclear, as is the impact of such ideas on future potential proliferators;
- v) convincing African and other states of a negative, namely that no weapon capability remains, is going to be inherently difficult. In order to assist this process, it might have been better for South Africa to have facilitated some international verification of the process of dismantling the devices and disposing of their components. However, the South Africans say that this might have caused proliferation risks.

On balance, the detailed explanation of the weapon programme offered at the workshop appeared to be believable and there is no obvious reason to conclude that any fissile material produced by South Africa has not been accounted for. And as nuclear weapons cannot be made without fissile material, no amount of non-nuclear weapon components or design blue-prints could enable South Africa to produce nuclear weapons if it did not have access to such materials.

B) How can confidence be built up between South Africa and its neighbours?

The discussion on this topic suggested that a first step would be the creation of additional transparency in respect of South Africa's nuclear programme. To achieve this, it will probably be necessary for the IAEA to send in a team of inspectors from nuclear-weapon

states to discuss details of South Africa's programme for making nuclear devices with the South African personnel involved. In this way, the outside world might acquire greater confidence in the explanation offered by South Africa concerning their programme, that its programme for constructing nuclear devices had been terminated and that the devices dismantled. Only such personnel could undertake the task, because of the inherent proliferation risks if non-nuclear-weapon state inspectors were involved.

The next step would be the rapid negotiation of a nuclear-weapon/device-free zone covering all of Africa. This would reinforce South Africa's NPT commitments, and provide a context within which regional collaboration on nuclear matters could be enhanced.

C) *How easy is it going to be for Africa to become a nuclear-weapon/device-free zone?*

The discussions at the workshop suggested this was feasible, but that a number of problems might need to be resolved first.

a) *The title of the zone?*

Although a nuclear-weapon-free zone is the usual terminology to describe such a zone, this does not specifically exclude the existence and development of nuclear explosive devices. Alternative names to a nuclear-weapon-free zone might be a nuclear-explosive-free zone or nuclear-device-free zone.

b) *Where to draw the maritime boundaries of the zone?*

This poses significant difficulties unless the method used can be divorced from disputed interpretations of the Law of the Sea and of the extent of territorial seas.

c) *Whether to include restrictions in the zone which are more demanding than those contained in the NPT, such as limitations on fuel reprocessing and uranium enrichment?*

Restrictions on reprocessing and enrichment may be desirable, but they will conflict with the commercial interests of the South African Atomic Energy Corporation, especially over enrichment. Any attempt to prevent the development of laser enrichment on non-proliferation grounds will also cut across these commercial interests.

d) *What sort of regional body or organisation is to be created to perform verification and management tasks?*

The choice appears to be between an arrangement of the OPANAL type, where the IAEA undertakes the safeguarding role and the regional body is just a secretariat, and one having a safeguarding, management and promotional role, such as EURATOM.

e) *What role should external powers play in regard to the Treaty?*

In previous regional agreements, this has been restricted to commitments by the nuclear-weapon states not to station nuclear weapons on the territory of the zone. In the case of Africa, should the Treaty go further and demand negative security guarantees from the nuclear weapon states as part of the free zone Treaty, or even positive guarantees?

f) *Should a prohibition on nuclear dumping be part of the Treaty?*

The Treaty of Raratonga, the nuclear-free zone treaty covering the South Pacific, includes such a provision. However, there already exists a convention covering nuclear dumping in Africa, sponsored by the OAU, and to include this prohibition in the African treaty would duplicate the existing legal instrument.

D) How is Africa to address its future security problems?

Africa finds itself facing uncertainty in 1993 over the future world security structure. Will there be a global Pax Americana or a world of regions dominated by regional powers? On balance, the workshop appeared to suggest a drift towards the direction of the latter, combined with a global security role for the members of the UN Security Council.

In the context of the African region, it may be desirable to address this situation by :

- i) developing co-operative structures in all areas ranging from trade; through industry, finance and the environment; to security and disarmament, in order to produce a holistic concept of security.
- ii) creating a CSCE-type structure in the military security area, plus a nuclear-weapon/device-free zone.

E) What relevance is nuclear energy and the global nuclear non-proliferation regime to Africa?

Africa has three roles in relation to nuclear energy and non-proliferation:

i) As a source of nuclear fuel

Africa has significant uranium reserves and there is a need to fit its producers into the system of transparency and monitoring of uranium movements. In addition, if the nuclear non-proliferation regime evolves further, issues of reporting production and stockpiles of uranium may also arise.

ii) As an expanding user of nuclear energy in non-power fields

Developments in the use of isotopes in agriculture, medicine and food preservation could offer major advantages to all African states. Exploitation of these capabilities could occur either via the IAEA or on a regional basis - or both.

iii) As a source of power and fuel cycle services

There are some grounds for arguing that nuclear power is part of the answer to problems such as global warming. However, before an expansion of nuclear power and fuel cycle services in South Africa could occur, developments in safeguards might need to be pursued to provide enhanced assurance that materials and facilities would not be misused.

F) What role will Africa play in the 1995 NPT conference

With 46 NPT parties, Africa collectively is in a position to play a major role in the 1995 NPT extension process. It has 34% of the parties to the Treaty and 58% of the bare minimum necessary to obtain a majority of the parties behind any specific extension proposal. A very significant issue for African states is the cost of attending the conference, and various schemes were discussed at the workshop for ameliorating this. The simplest will be for the PrepCom to decide that the conference will be held in New York. This would enable African states to attend without the need for elaborate schemes of regional and international financial support for their delegations.

The workshop indicated that for the African states, the key agenda items upon which they might need to concert their position were:

- a) Whether they favour a voted or consensual decision on extension?
- b) Whether they want an indefinite extension, a single fixed period, or some variation on renewable periods of extension. At the moment the option favoured is a single fixed period linked to specific demands [e.g.a CTBT], which if achieved by the end of the period would result in a consensus on the further extension of the Treaty. Unfortunately, the latter is not possible if the Treaty were to be extended only for a single fixed period. If the alternative of an extension for fixed periods was adopted, African states would need to decide how long these periods will be and what is to happen at the end of each period?
- c) What African states will press for specifically in terms of Article VI on nuclear disarmament? Will it be: a CTBT; a renewed commitment to eventual nuclear disarmament; a cut-off of the production of fissile material for military purposes; or, a speeding up of actual disarmament by the nuclear weapon states. They may also have to decide what role South Africa, the only state to have voluntarily disarmed, should play in this debate?
- d) What is Africa seeking in terms of security assurances? Is it a restating of existing ideas, or is a new concept needed for any movement in this area? Might it be necessary, for example, to look at the option of a global non-aggression treaty, linked to positive and negative security assurances and a commitment to no first use of nuclear weapons?
- e) What is Africa seeking in terms of the further evolution of the IAEA safeguards system? Might this include greater transparency following the lead given by South Africa, or all states party to the NPT completing an INFICIRC/153 agreement? Or even no supply of uranium without Full Scope Safeguards (FSS)?
- f) Whether other states of the region should try to become members of the nuclear export control regimes as South Africa is now doing?
- g) How should Africa react to threats to the non-proliferation regime, such as the North Korean withdrawal from the NPT? How will African states address the other difficult regional issues that may be encountered at the conference, especially those relating to the Middle East, and possibly to the states which have emerged from the former USSR?

Above all, 1995 requires Africa to decide whether it needs the NPT. One possible answer

raised at the workshop was no, as an African NWFZ will make the NPT irrelevant for Africa. An alternative answer discussed was yes, because :

- a) it is vital to allow the completion of the integration of South Africa into the African system;
- b) it is not in the interests of any African state to be subject to additional nuclear threats from outside the region, something which might follow any degradation or collapse of this global regime; and
- c) the NPT underpins the global nuclear trading system upon which a number of African states are dependent for significant portions of their state revenues, and which may play an increasingly significant role in African development policies.

CONCLUSIONS

The workshop illustrated that a large agenda of issues now faces African states in the nuclear field. They have little option but to be active players in the international nuclear game, and need to address urgently the following questions:

- a) How does nuclear energy fit into Africa's security and economic future?
- b) What type of nuclear non-proliferation regime does Africa want to see both globally and regionally?
- c) What efforts are African states prepared to put into agreeing what their collective objectives might be at the 1995 NPT conference and what resources are they prepared to commit in order to achieve those objectives?

John Simpson

23.04.93